PA 09483831

FIG. 1

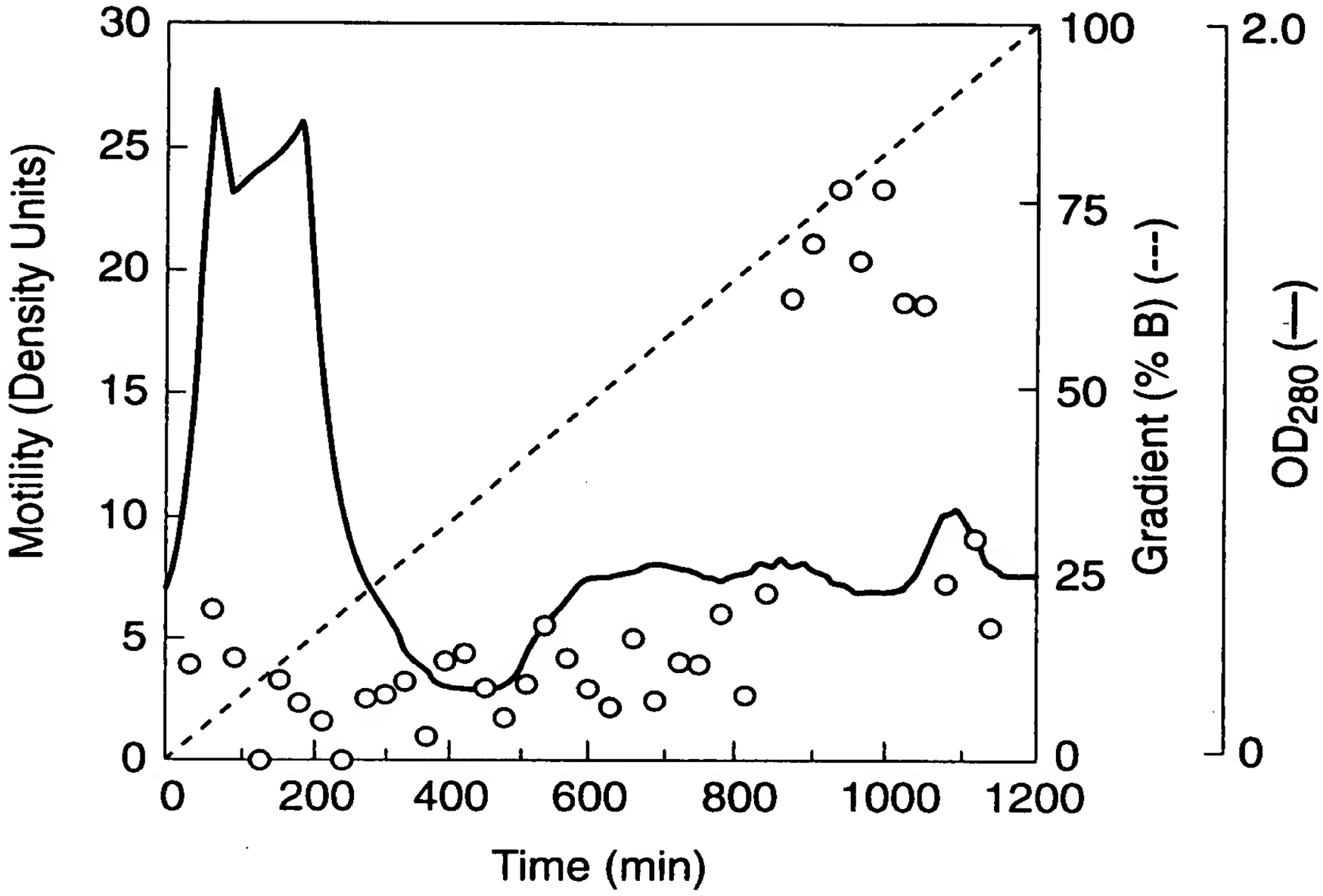
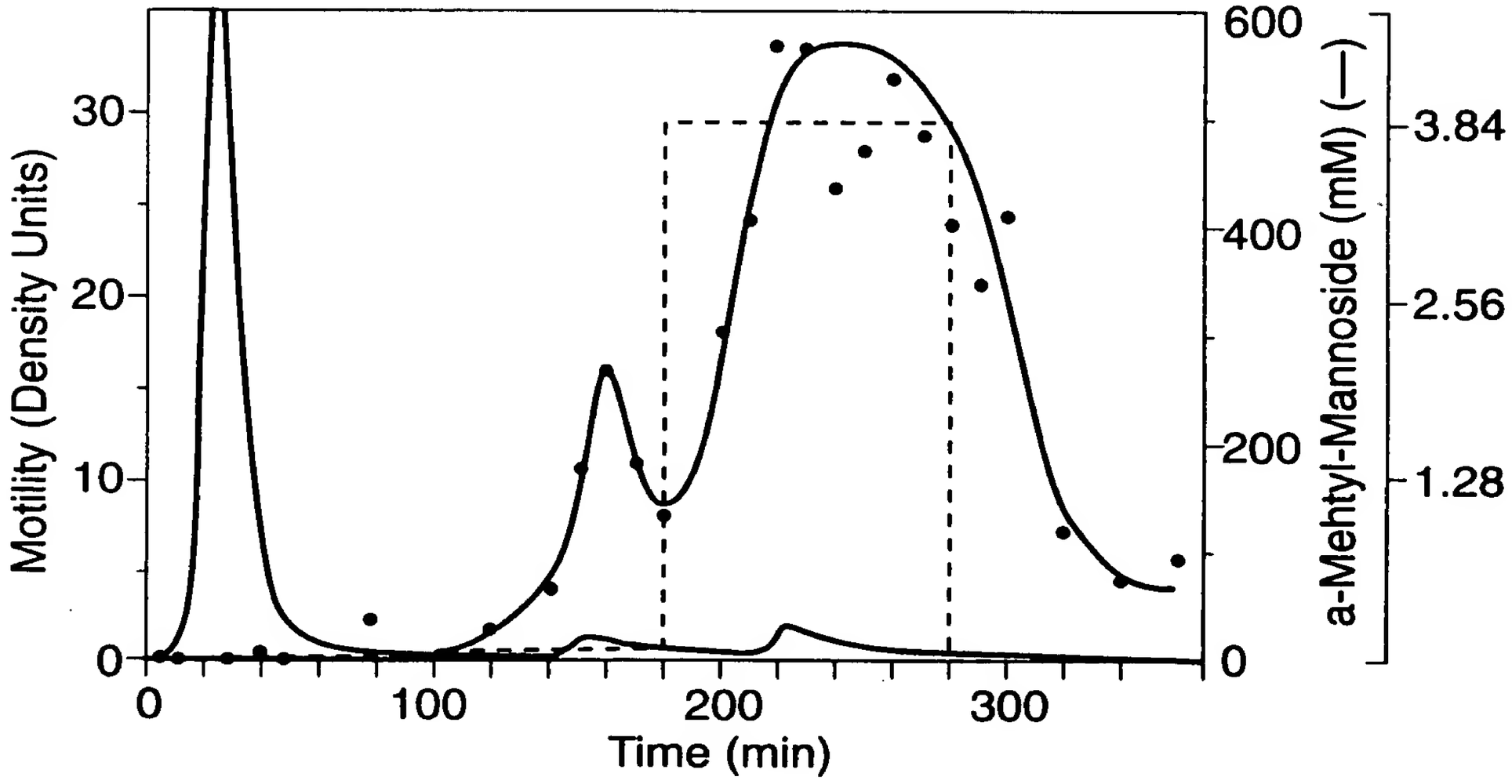


FIG. 2



02-02

FIG. 3

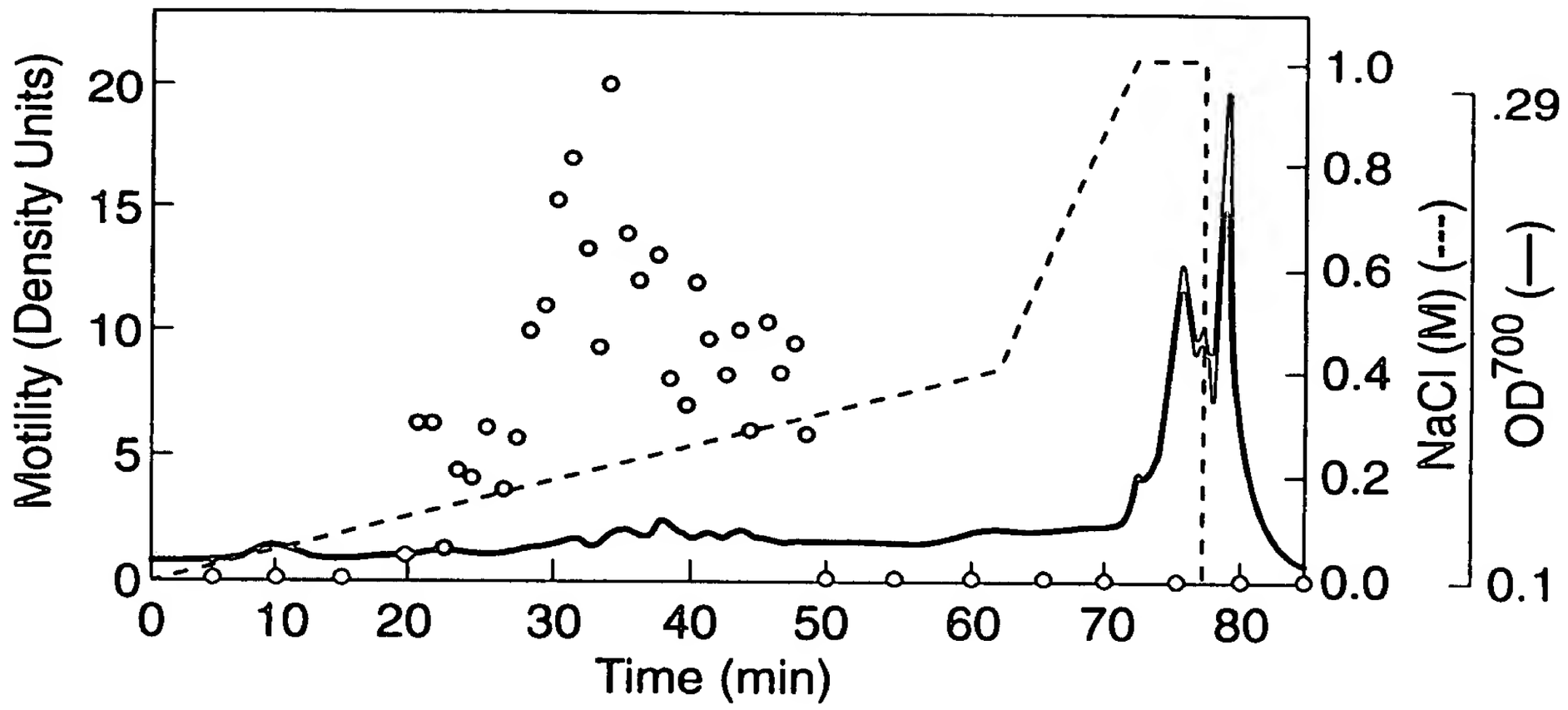

Motility (Density Units)
20
15
10
5
0
0
10
20
30
40
50
60
70
80
Time (min)
1.0
0.8
0.6
0.4
0.2
0.0
NaCl (M) (---)
.29
0.1
OD700 (—)

FIG. 4

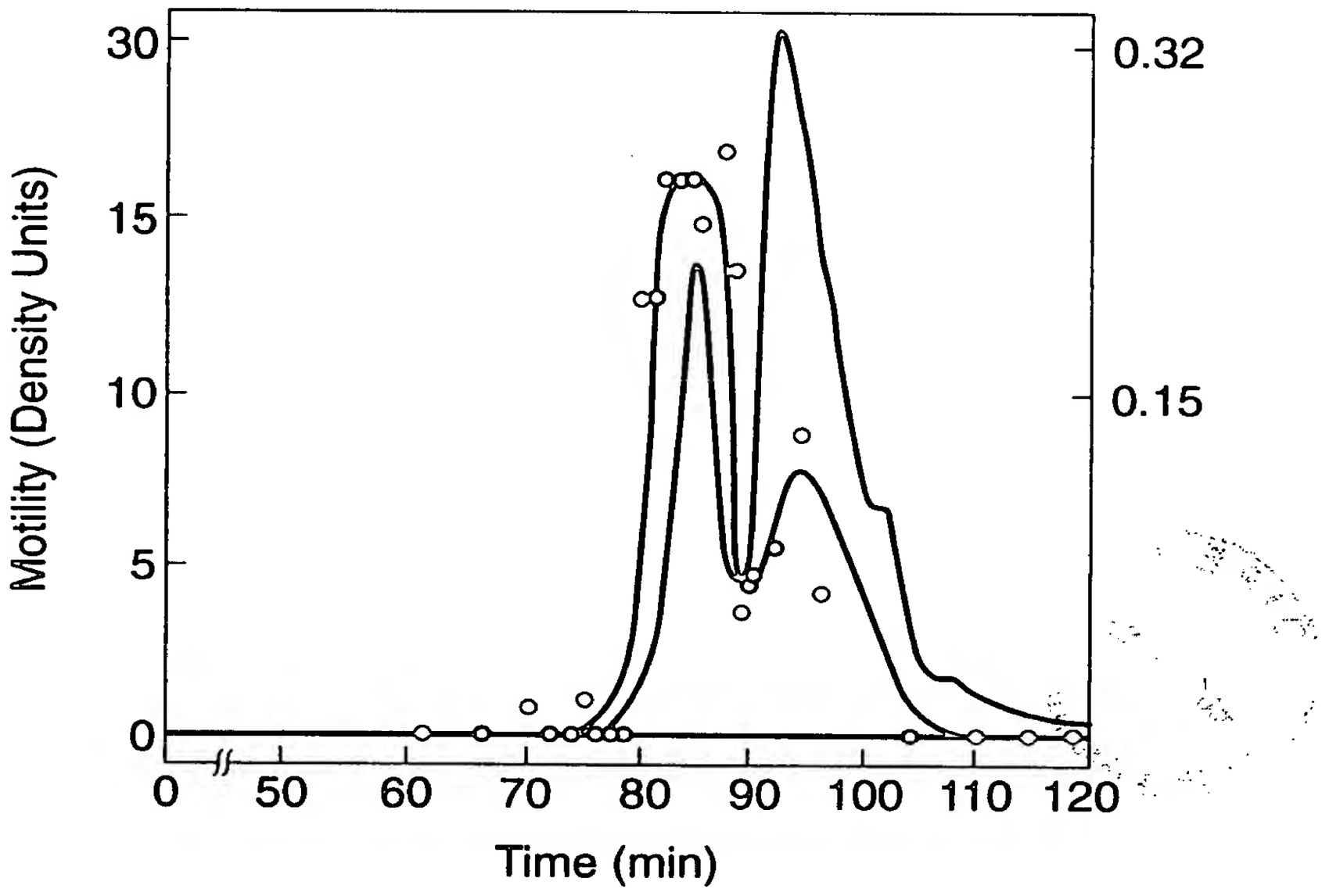

Motility (Density Units)
30
15
10
5
0
0
50
60
70
80
90
100
110
120
Time (min)
0.32
0.15

FIG. 5

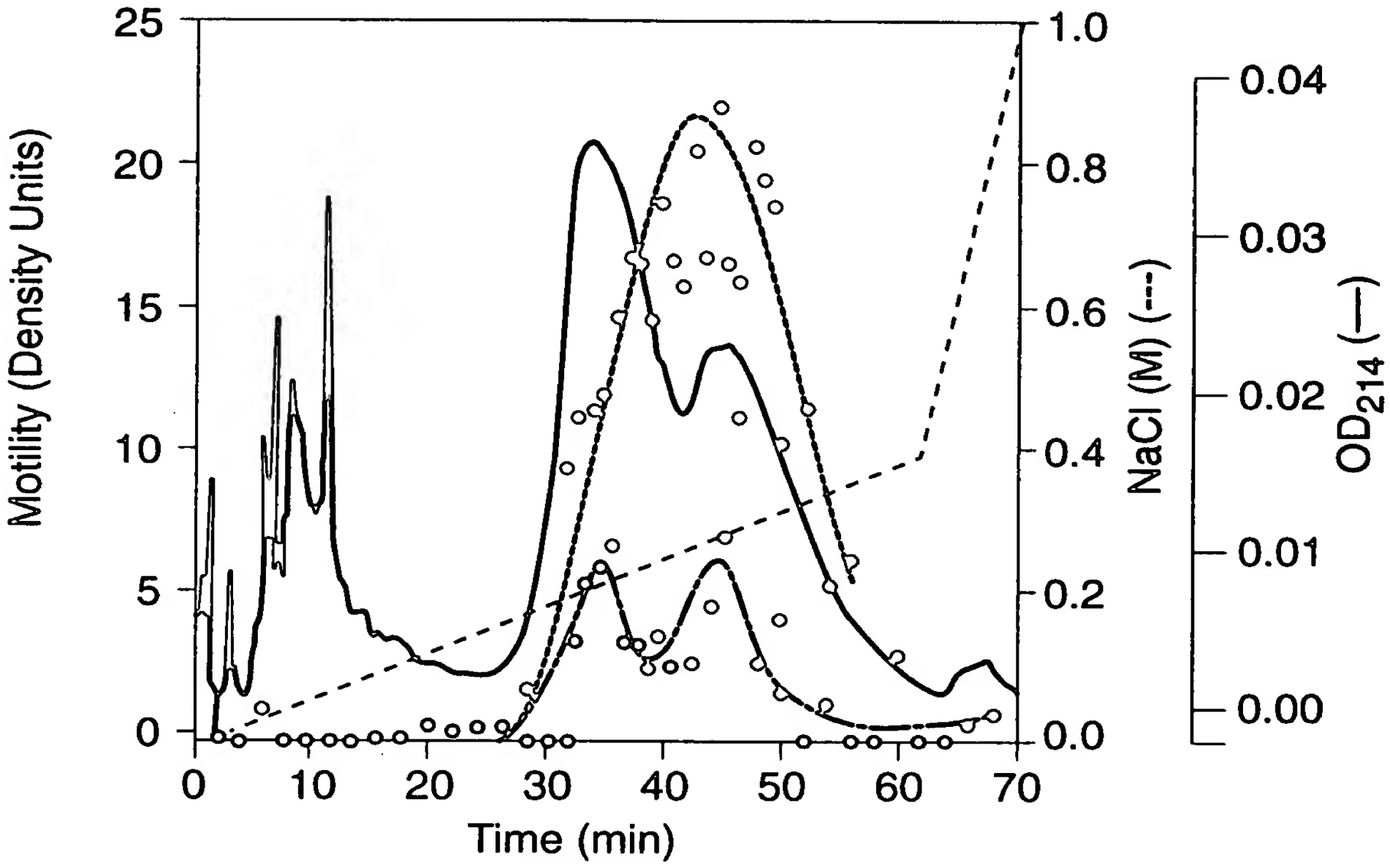

Motility (Density Units)
25
20
15
10
5
0
0
10
20
30
40
50
60
70
Time (min)
1.0
0.8
0.6
0.4
0.2
0.0
NaCl (M) (- - -)
0.04
0.03
0.02
0.01
0.00
OD214 (—)

FIG. 8

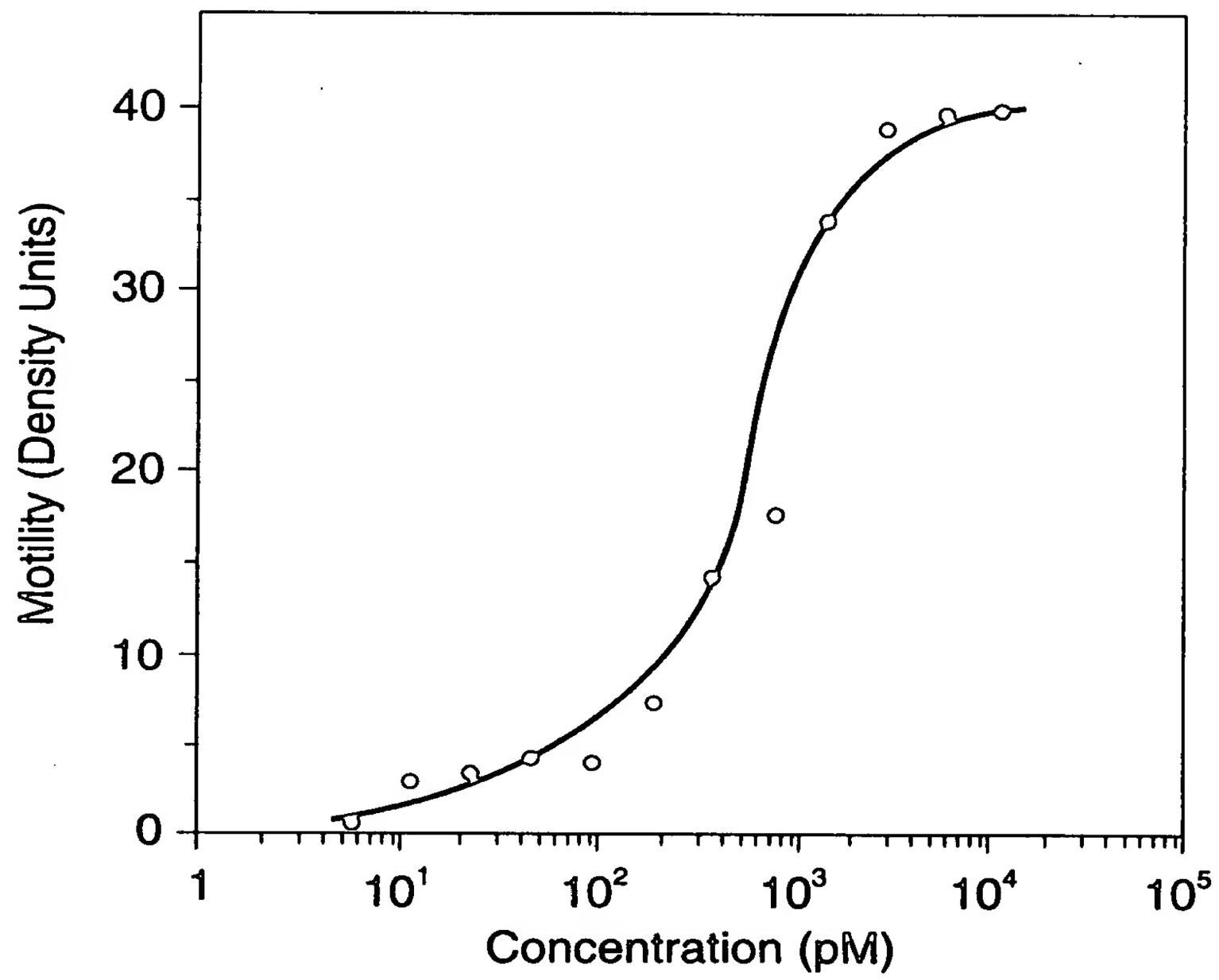

Motility (Density Units)
40
30
20
10
0
1
10¹
10²
10³
10⁴
10⁵
Concentration (pM)

FIG. 6A

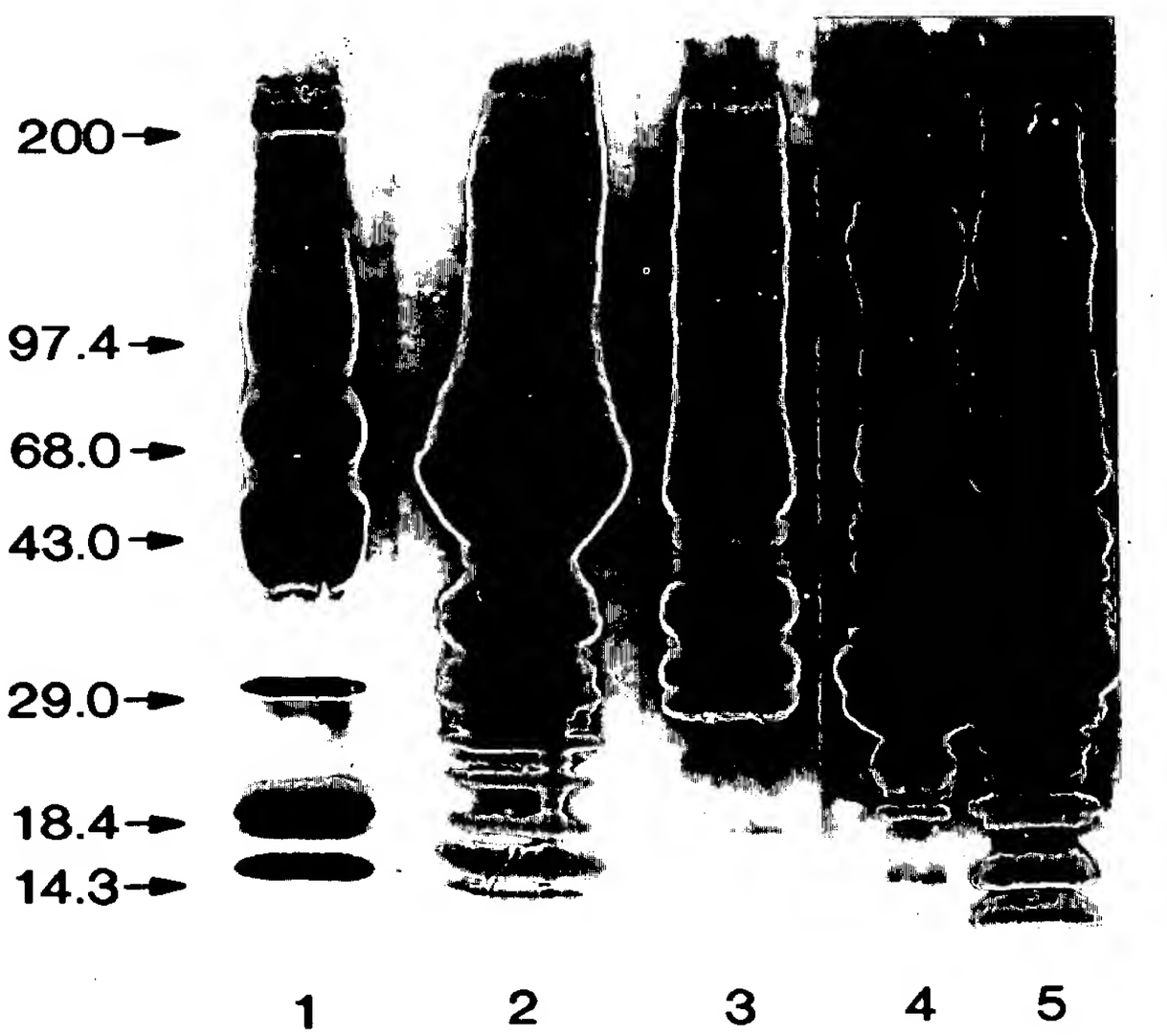


FIG. 6B

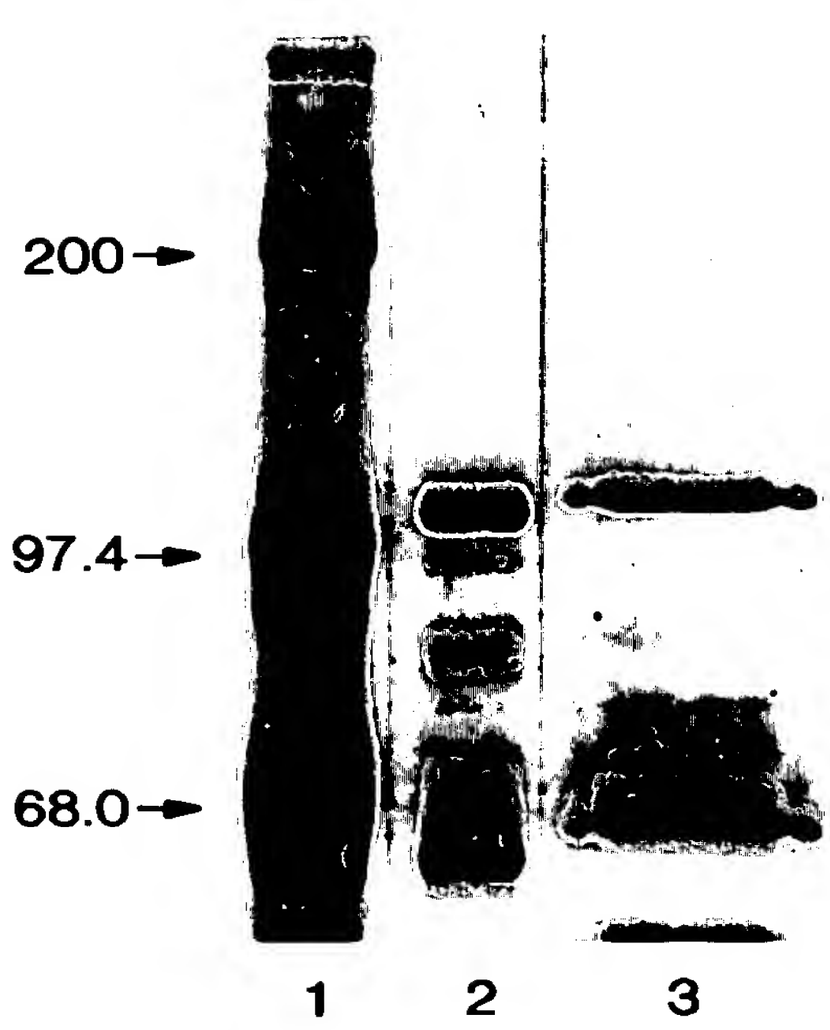


FIG. 6C

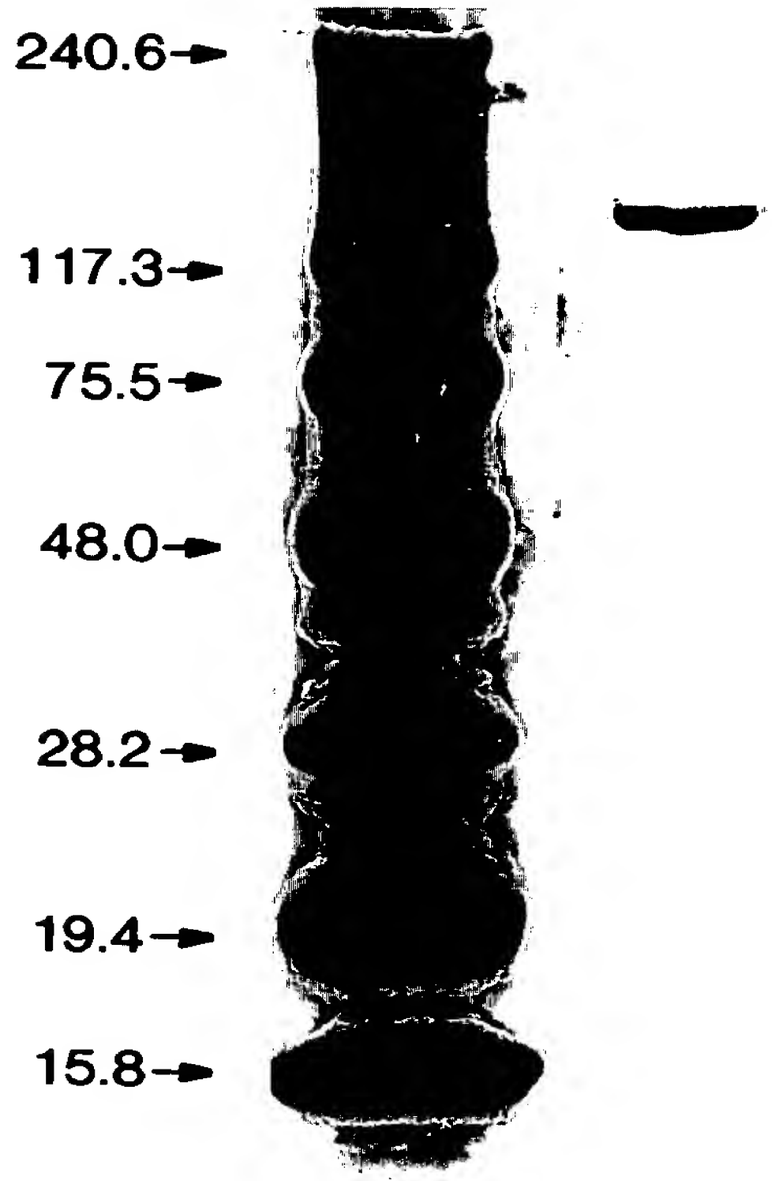


FIG. 7

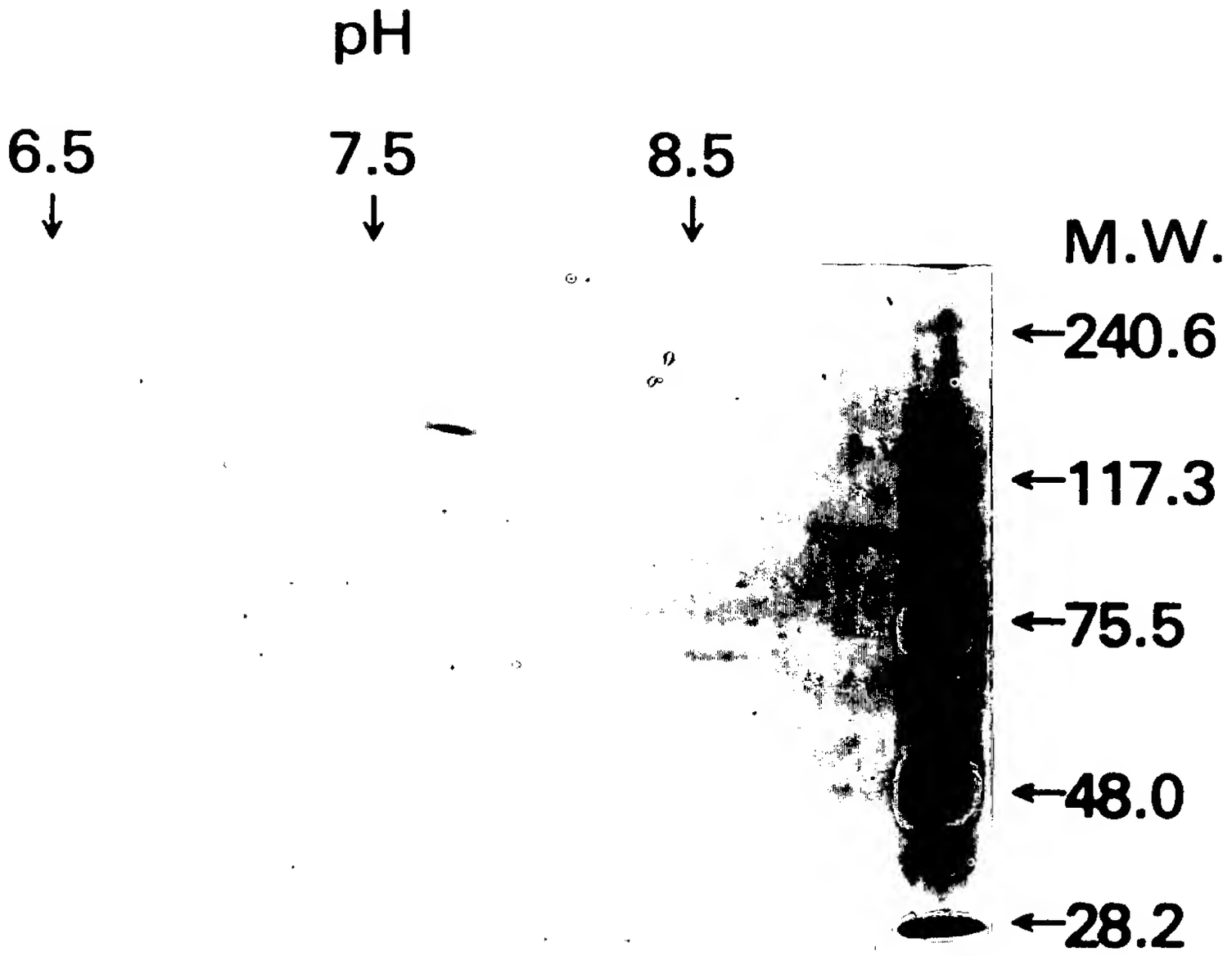


FIG. 9

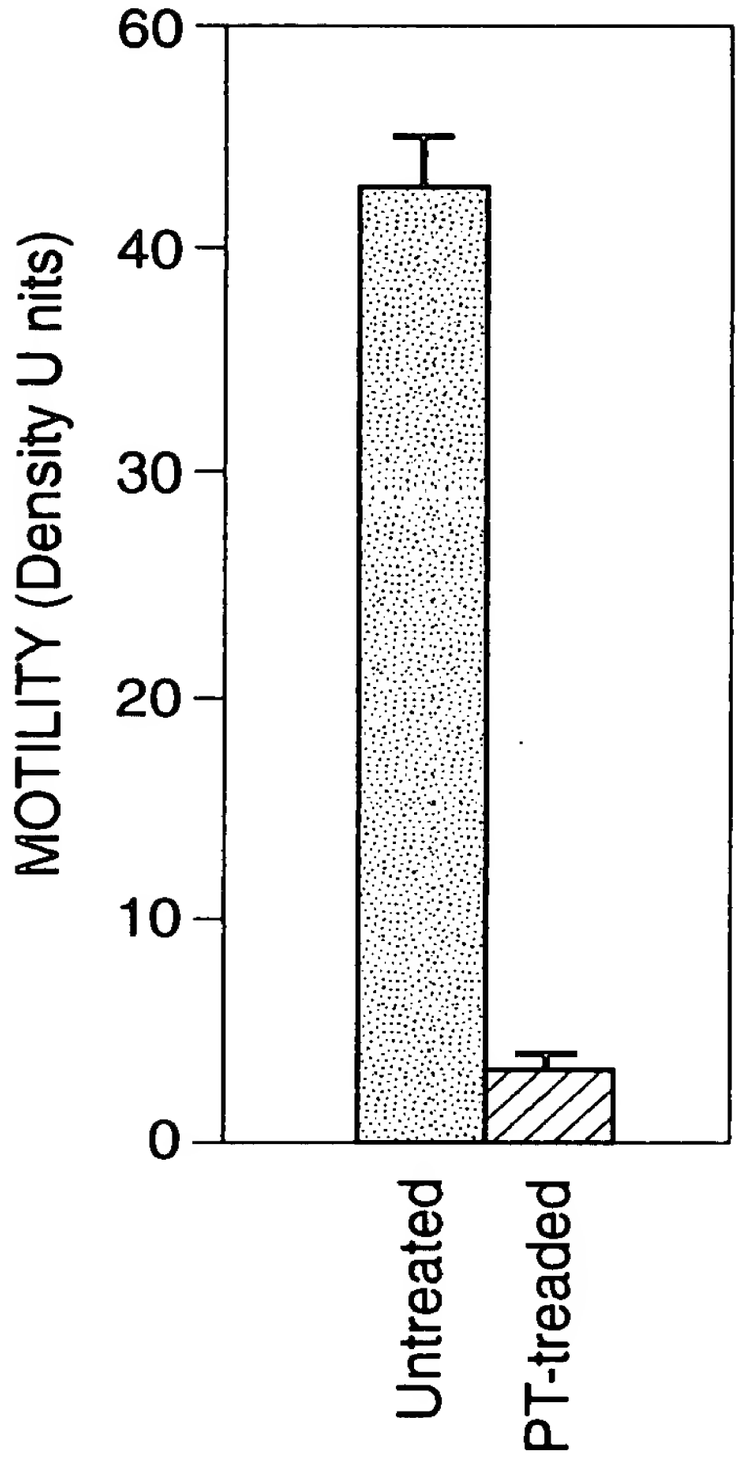
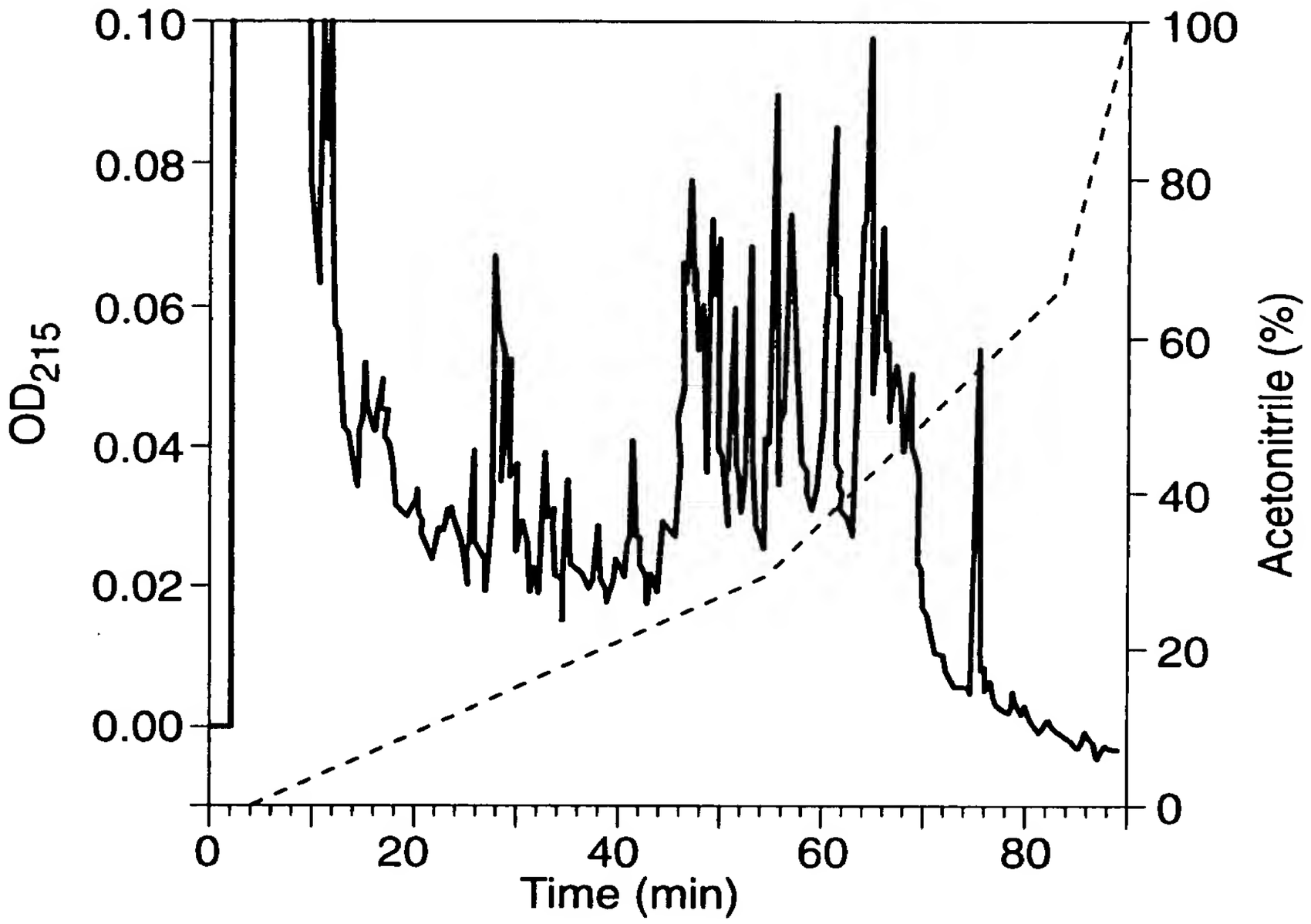


FIG. 10

Lower Walls \ Upper Walls	0	0.01%	0.1%
0	4.8 ± 0.3	13.7 ± 0.8	33.8 ± 1.6
0.01%	45.4 ± 4.0	39.3 ± 2.6	34.9 ± 1.4
0.1%	75.6 ± 1.8	58.3 ± 3.1	41.0 ± 3.4

FIG. 11


0.10
0.08
0.06
0.04
0.02
0.00
OD215
100
80
60
40
20
0
Acetonitrile (%)
0
20
40
60
80
Time (min)

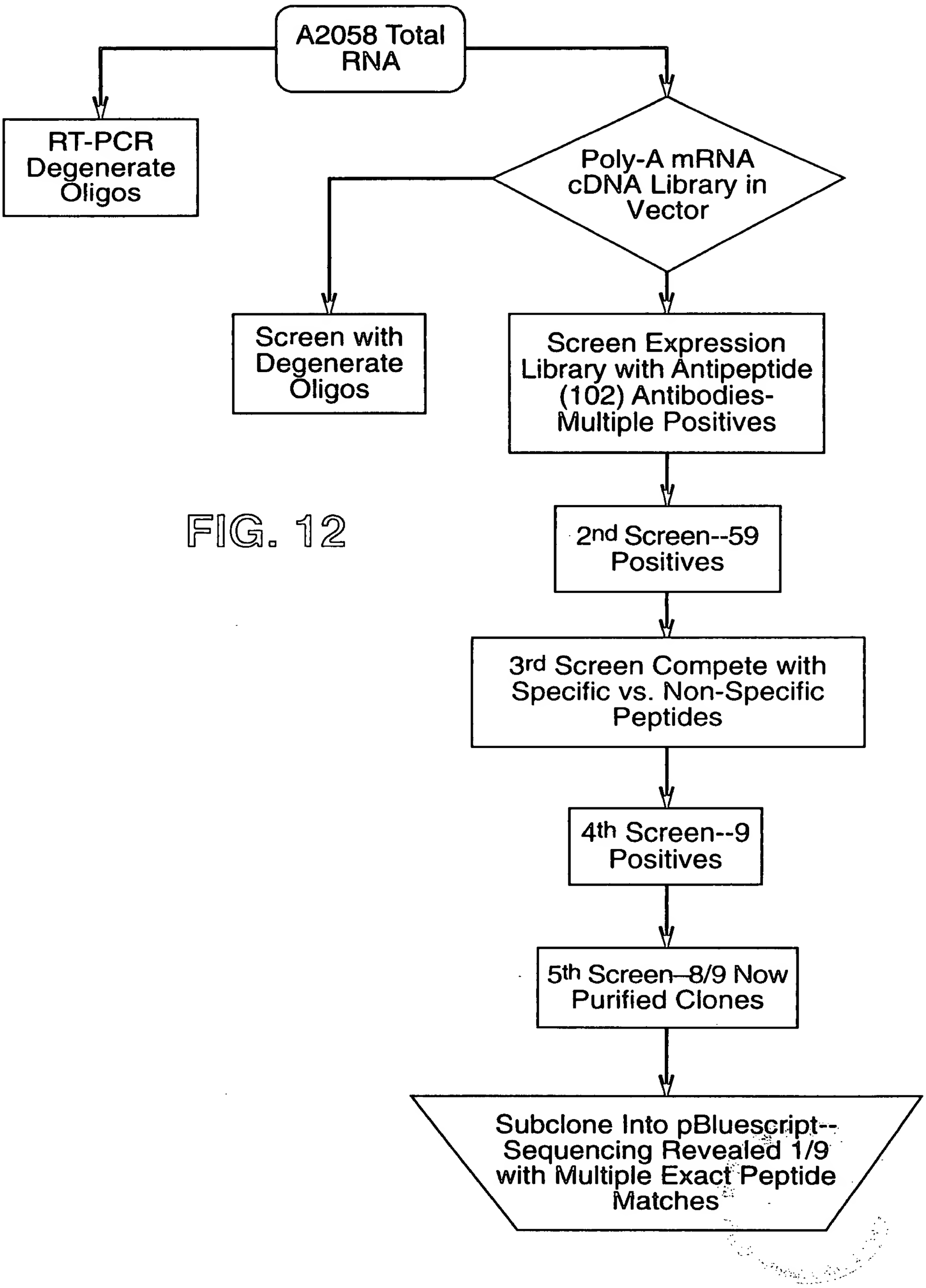

A2058 Total RNA
RT-PCR Degenerate Oligos
Poly-A mRNA cDNA Library in Vector
Screen with Degenerate Oligos
Screen Expression Library with Antipeptide (102) Antibodies-Multiple Positives
2nd Screen--59 Positives
3rd Screen Compete with Specific vs. Non-Specific Peptides
4th Screen--9 Positives
5th Screen--8/9 Now Purified Clones
Subclone Into pBluescript--Sequencing Revealed 1/9 with Multiple Exact Peptide Matches

FIG. 12

FIG. 13

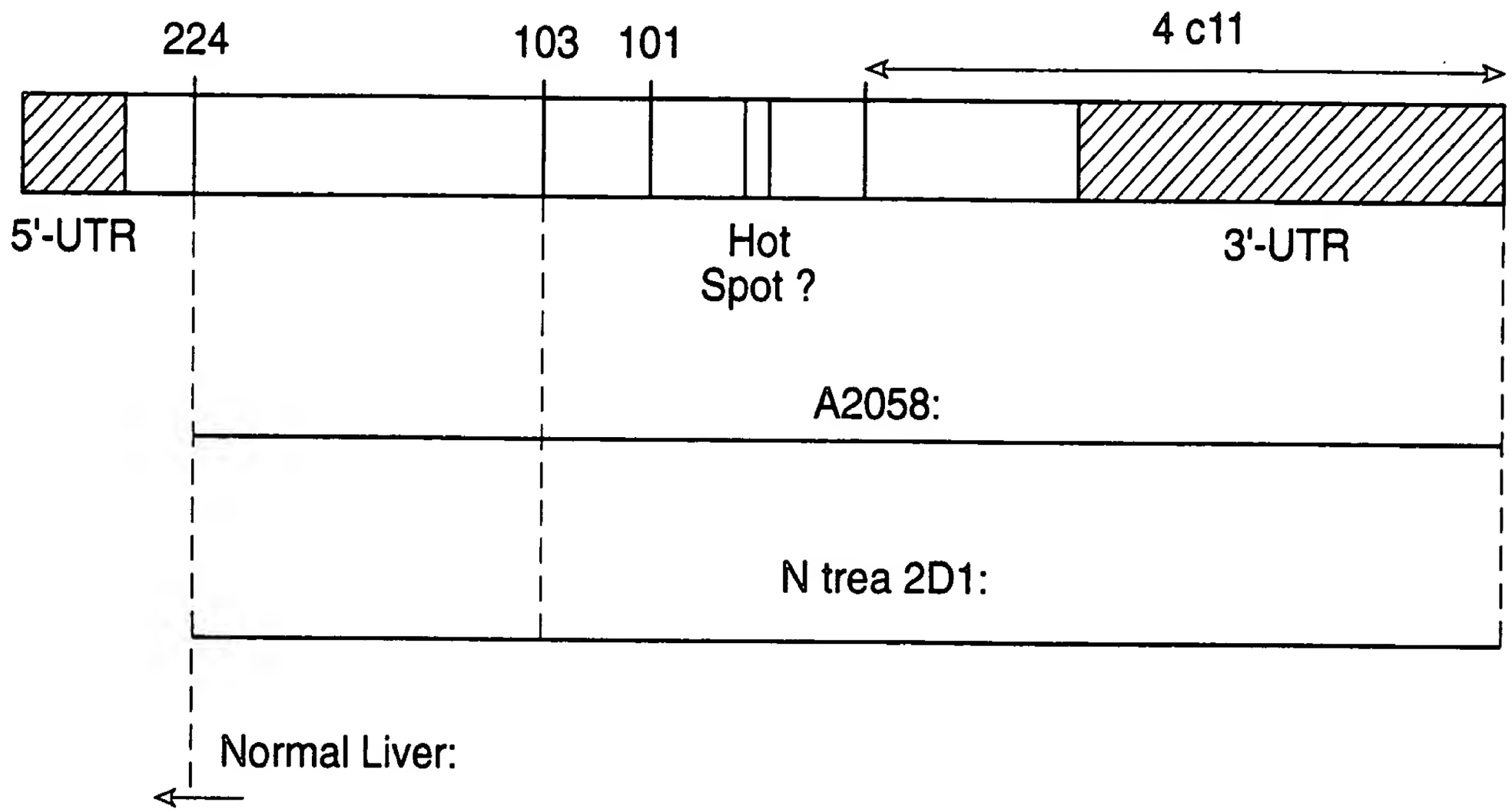

224
103
101
4 c11
5'-UTR
Hot
Spot ?
3'-UTR
A2058:
N trea 2D1:
Normal Liver:

FIG. 19

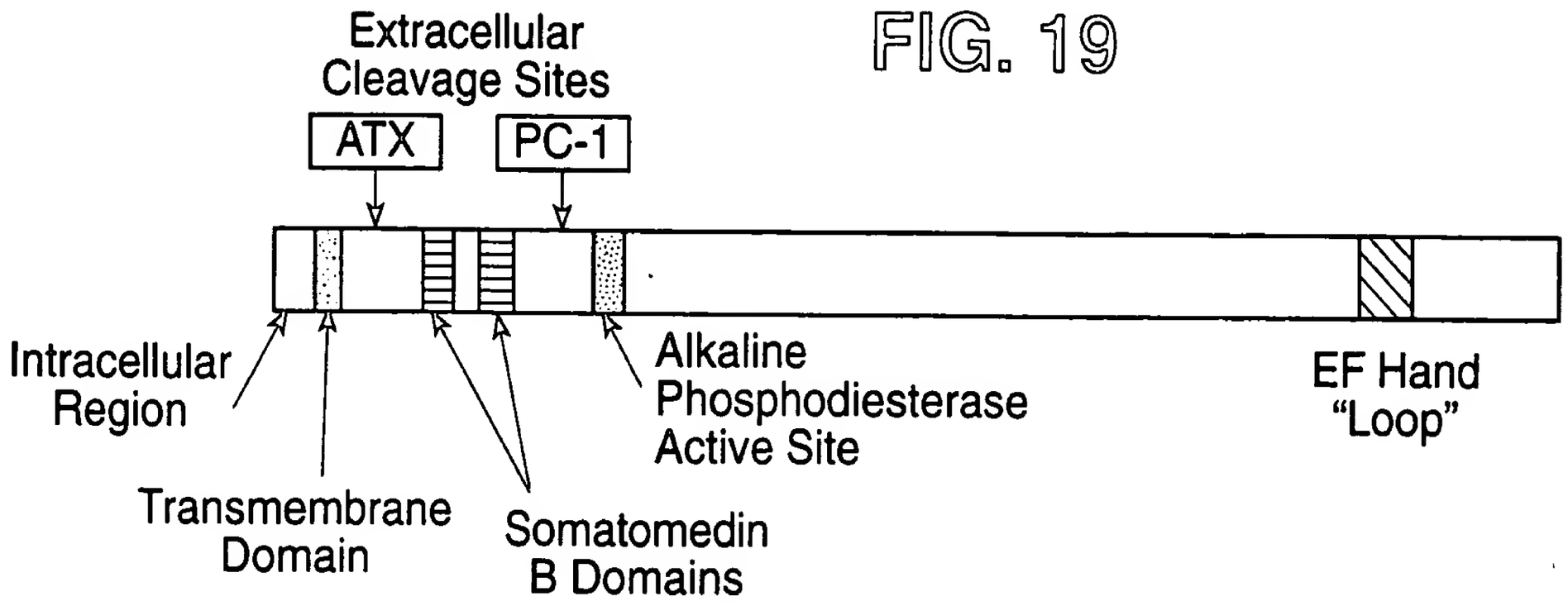

Extracellular
Cleavage Sites
ATX
PC-1
Intracellular
Region
Transmembrane
Domain
Somatomedin
B Domains
Alkaline
Phosphodiesterase
Active Site
EF Hand
"Loop"

FIG. 14

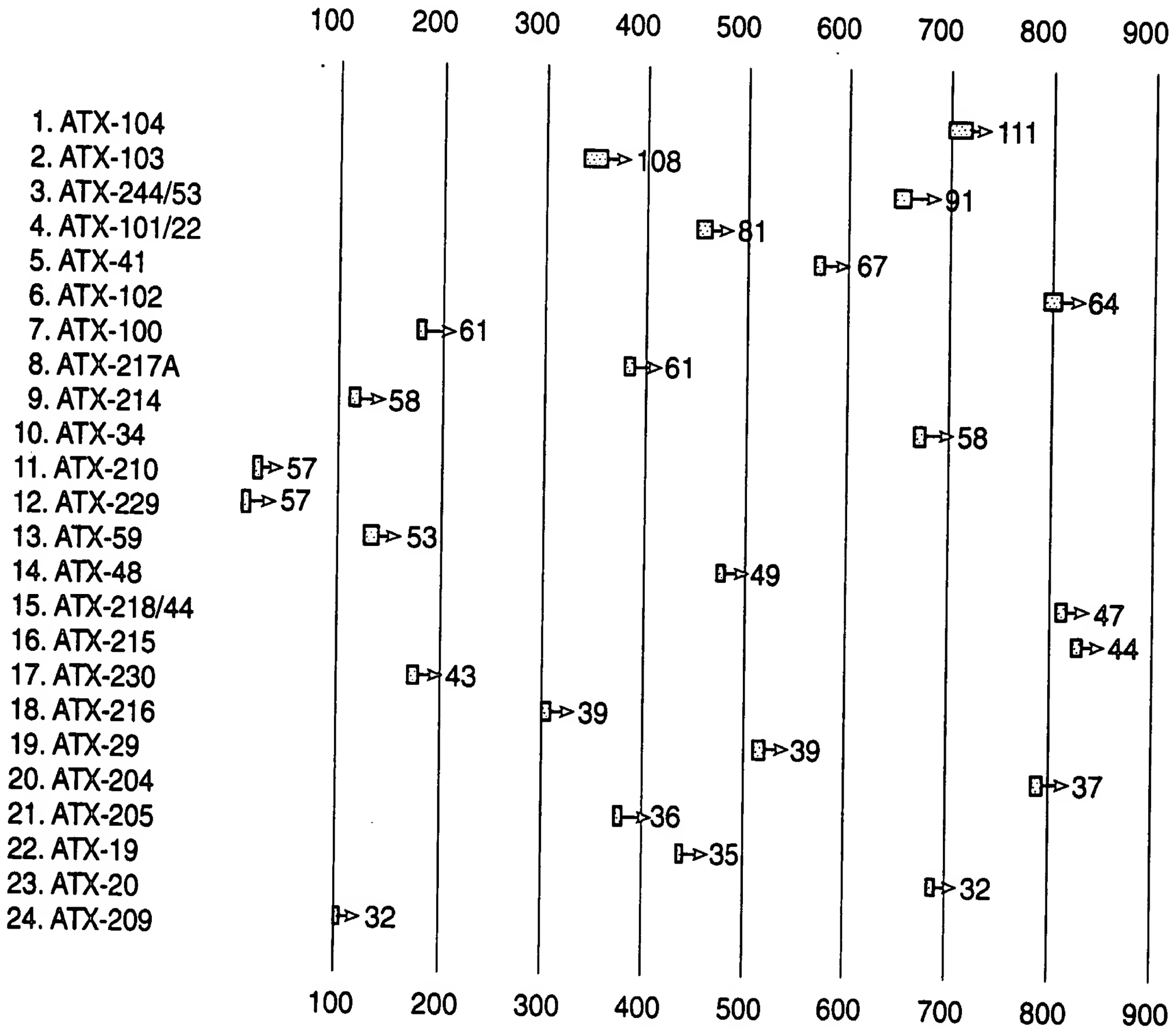

100
200
300
400
500
600
700
800
900
1. ATX-104
2. ATX-103
3. ATX-244/53
4. ATX-101/22
5. ATX-41
6. ATX-102
7. ATX-100
8. ATX-217A
9. ATX-214
10. ATX-34
11. ATX-210
12. ATX-229
13. ATX-59
14. ATX-48
15. ATX-218/44
16. ATX-215
17. ATX-230
18. ATX-216
19. ATX-29
20. ATX-204
21. ATX-205
22. ATX-19
23. ATX-20
24. ATX-209
111
108
91
81
67
64
61
61
58
58
57
57
53
49
47
44
43
39
39
37
36
35
32
32

FIG. 15

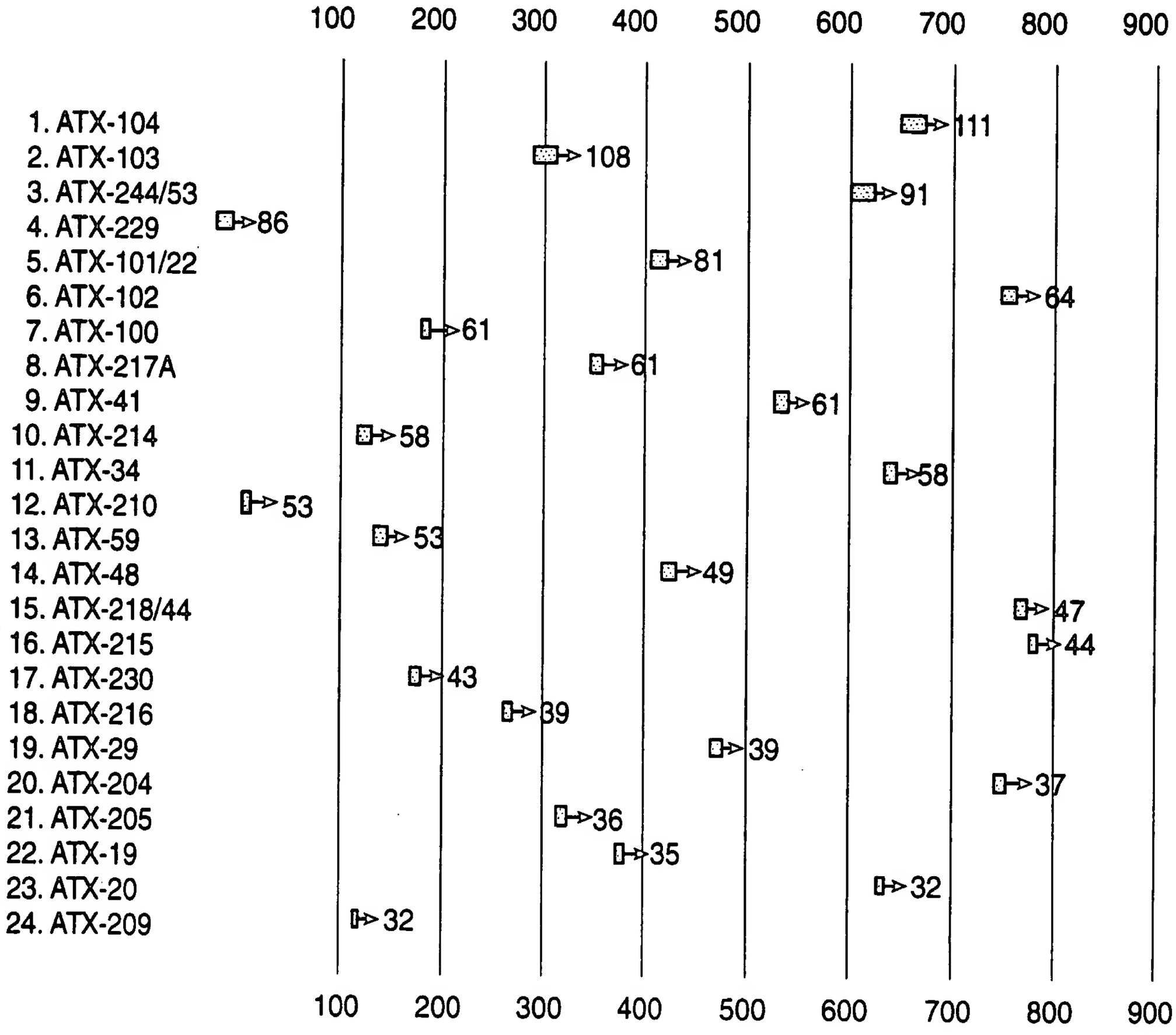

100
200
300
400
500
600
700
800
900
1. ATX-104
2. ATX-103
3. ATX-244/53
4. ATX-229
5. ATX-101/22
6. ATX-102
7. ATX-100
8. ATX-217A
9. ATX-41
10. ATX-214
11. ATX-34
12. ATX-210
13. ATX-59
14. ATX-48
15. ATX-218/44
16. ATX-215
17. ATX-230
18. ATX-216
19. ATX-29
20. ATX-204
21. ATX-205
22. ATX-19
23. ATX-20
24. ATX-209
111
108
91
86
81
64
61
61
61
58
58
53
53
49
47
44
43
39
39
37
36
35
32
32

FIG. 16

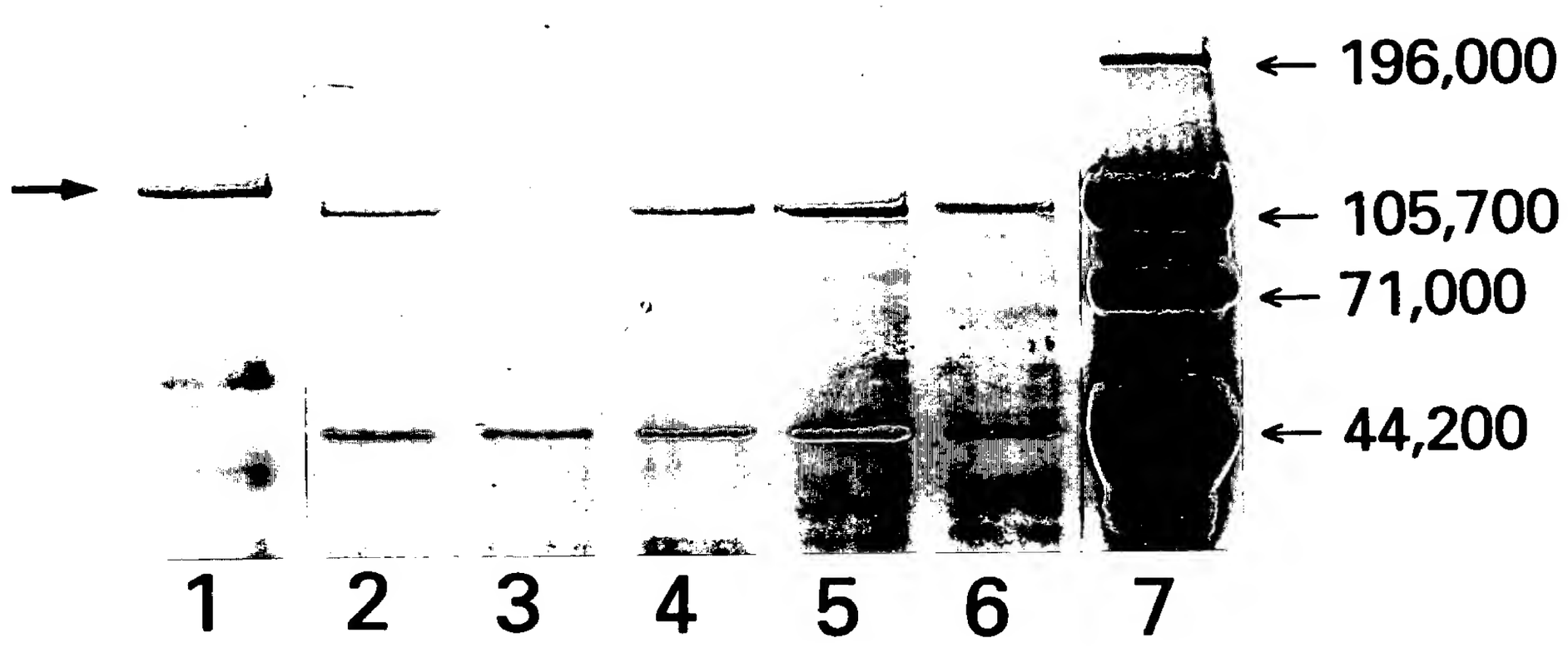


FIG. 17A

FIG. 17B

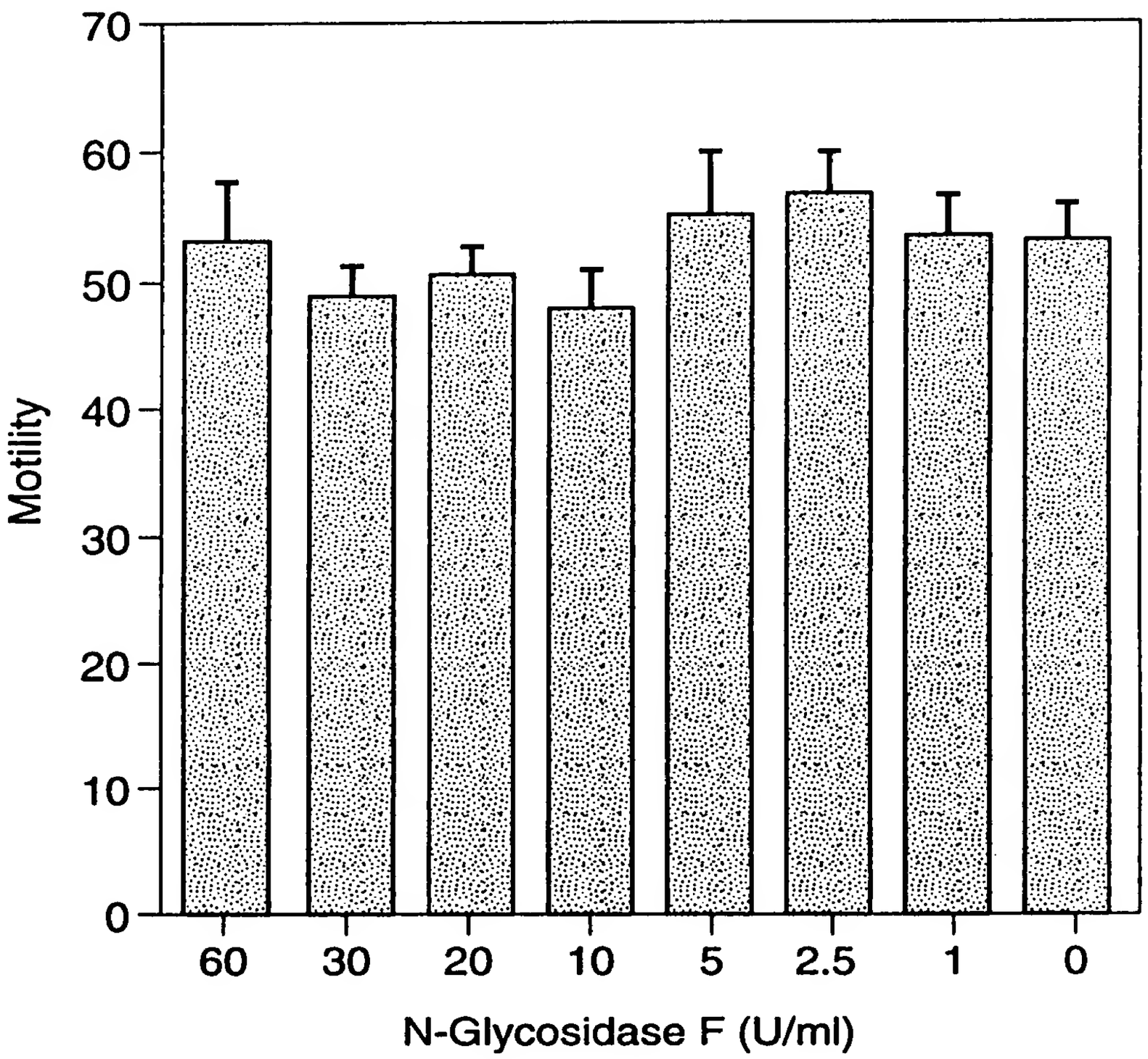


FIG. 18A

```
hATX          MARRSSFQSCQIISLFTFAVGVSICLGFTAHRIKRAEGWEEGPPTVLSDSPWTNISGSCKGRCFELQEAGPPDCRCDNLCKSYTSCCHDF  90
hPCl  MDVGEEPLEKAARARTAKDPNTYKVLSLVLSVCVLTTIL.....GCIFG....LKPSCAKEVK.SCKGRCF...ERTFGNCRCDAACVELGHCCLDY  84

hATX  DELCLKTARGWECTKDRCGEVRNEENACHCSEDCLARGDCCTNYQVVCKGESHWVDDDCEEIKAAECPAGFVRPPLIIFSVDGFRASYMKKGSKVMPNIE 190
hPCl  QETCIEPEHIWTCNKFRCGEKRLTRSLCACSDDCKDKGDCCINYSSVCQGEKSWVEEPCESINEPQCPAGFETPPTLLFSLDGFRAEYLHTWGGLLPVIS 184

hATX  KLRSCGTHSPYMRPVYPTKTFPNLYTLATGLYPESHGIVGNSMYDPVFDATFHLRGREKFNHRWWGGQPLWITATKQGVKAGTFFWS.............  272
hPCl  KLKKCGTYTKNMRPVYPTKTFPNHYSIVTGLYPESHGIIDNKMYDPKMNASFSLKSKEKFNPEWYKGEPIWVTAKYQGLKSGTFFWPGSDVEINGIFPDI 284

hATX  .....VVIPHERRILTILRWLTLPDHERPSVYAFYSEQPDFSGHKYGPFGPEESSYGSPFTPAKRPKRKVAPKRRQERPVAPPKKRRRKIHRMDHYAAET 372
hPCl  YKMYNGSVPFEERILAVLQWLQLPKDERPHFYTLYLEEPDSSGHSYGPVSSE..................................................  336

hATX  RQDKMTNPLREIDKIVGQLMDGLKQLKLRRCVNVIFVGDHGMEDVTCDRTEFLSNYLTNVDDITLVPGTLGRIR.SKFSNN.AKYDPKAIIANLTCKKPD 470
hPCl  ....VIKALQRVDGMVGMLMDGLKELNLHRCLNLILTSDHGMEQGSCKKYIYLNKYLGDVKNIKVIYGPAARLRPSDVPDKYYSPNYEGIARNLSCREPN 432

hATX  QHFKPYLKQHLPKRLHYANNRRIEDIHLLVERRWHVARKPLDVYKKPSGKCFFQGDHGFDNKVNSMQTVPVGYGPTFKYKTKVPPFENIELYNVMCDLIG 570
hPCl  QHFKPYLKHGLPKRLHFAKSDRIEPLTFYLDPQWQLALNPSE..RKYCGSGF....HGSDNVFSNMQALFVGYGPGFKHGIEADTFENIEVYNLMCDLLN 526
```

FIG. 18B

```
hATX  LKPAPNNGTHGSLNHLLRTNTFRPTMPEEVTRPNYPGIMYLQSDFDLGCTCDDKVEPKNKLD.ELNKRLHTKGSTEERHLLYGRPAVLYRTR.YDILYHT 668
hPCl  LTPAPNNGTHGSLNHLLKNPVYTPKHPKEV.HPLVQCPFTRNPRDNLGCSCNPSILPIEDFQTQFNLTVAEEKIIKHETLPYGRPRVLQKENTICLLSQH 625

hATX  DFESGYSEIFLMLLWTSYTVSKQAEVSSVPDHLTSCVRPDVRVSPSFSQNCLAYKNDKQMSYGFLFPPYLSSSPEAKY.DAFLVTNMVPMYPAFKRVWNY 767
hPCl  QFMSGYSQDILMPLWTSYTVDRNDSFS..TEDFSNCLYQDFRIPLSPVHKCSFYKNNTKVSYGFLSPPQLNKNSSGIYSEALLTTNIVPMYQSFQVIWRY 723

hATX  FQRVLVKKYASERNGVNNISGPIFDYDYDGLHDTEDKIKQ...YVEGSSIPVPTHYYSIITSCLDFTQPADKCDGPLSVSSFILPHRPDNEESCNSSEDE 875
hPCl  FHDTLLRKYAEERNGVNVVSGPVFDFDYDGRCDSLENLRQKRRVIRNQEILIPTHFFIVLTSCKDTSQTPLHCEN.LDTLAFILPHRTDNSESCVHGKHD 822

hATX  SKWVEELMKMHTARVRDIEHLTSLDFFRKTSRSYPEILTLKTYLHTYESEI 915
hPCl  SSWVEELLMLHRARITDVEHITGLSFYQQRKEPVSDILKLKTHLPTFSQED 873
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